



Species

Cleisocentron Brühl (Orchidaceae: Vandae: Deceptorinae), a new generic record for Peninsular India with a new species

Mathew Jose Mathew¹, Jose Mathew^{2✉}

¹Mott MacDonald, Al Moayed House, Seef, Manama, Kingdom of Bahrain

²Department of Botany, Sanatana Dharma College, Alappuzha, IN - 688003, Kerala, India

✉Corresponding author:

Department of Botany, Sanatana Dharma College, Alappuzha, IN - 688003, Kerala, India;

Tel. +919744702847, Email: polachirayan@yahoo.co.in

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ABSTRACT

Cleisocentron neglectum is described as a new species from Chikmagalur Hills of Karnataka. It was previously confused with Indo-Sri Lankan species *Robiquetia rosea* (Lindl.) Garay. Taxonomic descriptions, morphological differences to their allied taxa, and colour photographs of the new taxon are also provided.

1. INTRODUCTION

Western Ghats- Sri Lankan region is considered as one among the richest biodiversity hotspot in world (Myers et al, 2000). This area holds and shares endemism in higher extent. Hence, misinterpretation/merging/reinitiating of the narrow endemic taxa with its

related elements was happened repeatedly. Such a way, a misinterpretation happened in the identification of *Robiquetia rosea*. Botanical exploration of the forests of Chikkamaglur of Karnataka, during 2017-2018, yielded some interesting specimens of epiphytic orchids. Two collected specimens were conserved in MJM Orchidarium. Literature as well as of herbarium specimens equated this species as *Robiquetia rosea*. However, critical analysis revealed that the collected specimens do not match any of the *Robiquetia* elements and it will fit under another genus *Cleisocentron*.

There is no dispute in the identity of *Robiquetia rosea* (Lindl.) Garay, of which there is a specimen (P00361048) at MNHN under name *Saccolabium roseum* Lindl. and photographs and drawings hosted in Swiss Orchid Foundation under name *Robiquetia rosea*.



Figure 1. *Cleisocentron neglectum* Mathew J. Mathew & J.Mathew; A-B. Flowering plant in orchidarium; C. Flower; D. Dorsal sepal; E. Lateral sepal; F. Lateral petal; G. Labellum; H. Column with foot; I. Pollinia.

The genus *Cleisocentron* (Vandae: Deceptorinae), one of the smallest genus in the family Orchidaceae mainly distributed in Vietnam, Borneo and Himalaya. Based on the recent estimations, the genus is represented by 6 species and of which, only 1 species (*Cleisocentron pallens*) from India (Pridgeon et al, 2014). This genus can be easily recognized from *Robiquetia* by its cylindrical spur of labellum having no constriction; column with foot and four equal pollinium (vs. spur of labellum having a constriction in middle; column without foot and two pollinium (rarely 4 pollinium present, when 4 in two unequal pairs) in *Robiquetia*). A thorough analysis of the literature (Nayar et al, 2014; Sasidharan, 2013), herbarium specimens availed at MH, and KUBH and online digital repositories allowed us to determine that the specimens have unique characters and represented as new species.

Cleisocentron neglectum Mathew J.Mathew & J.Mathew, sp. nov. (Fig. 1)

Diagnosis: *Cleisocentron neglectum* is a foremost taxon amongst the genus in peninsular India. This species is fairly similar to *Cleisocentron merrillianum* (Ames) Christenson, but differs mainly in having: oblong leaves; lax inflorescence and violet to pale pink flowers (vs. semi terete leaves, condensed inflorescence and white to pale blue flowers in *C. merrillianum*).

Type: India. Karnataka, Chikmagalur District, 12 km away from Bhadra Wildlife Sanctuary, altitude 1500 m a. s. l., 15 September 2017, J.Mathew 6022 (holotype: MH! ; isotype: KUBH! (Kerala University Herbarium). – PARATYPE: Same locality, 18 September 2017, J.Mathew 6028-6031(KUBH!).

Since the herbarium of the Kerala University Herbarium, Thiruvananthapuram has not been formally registered with Index Herbariorum (Thiers [continuously updated]), it is here referred to as "KUBH".

Epiphytic herbs. Stem attaining 25 cm height, erect, branched. Roots hairy, velamen roots rarely found. Leaves oblong, fleshy, numerous, acute at tip, midrib prominent, 7-9 x 0.7-0.8 cm in size. Inflorescence supra-axillary, about 5 cm long lax raceme. Flowers resupinate, deep violet to pink in colour. Deep purple ting seen in middle. Bracts 2 x 1 mm in size, acute. Sepals and petals spreading. Sepals and petals gland dotted, one veined. Dorsal sepal obovate 3-4 x 2-3 mm; lateral sepals oval in shape 3-4 x 1.5-2 mm. Petals obovate, 3-4 x 2 mm. Labellum firmly adnate to the column, urceolate, 7 x 2.5 mm, obscurely 3-lobed with a conspicuous spur; spur cylindrical, without any constriction; side lobes insignificant; midlobe triangular. Column erect, cylindrical, foot decurrent on the back wall of labellum as a cushion. Pollinia 4, each completely divided in to four valves; stipe long, linear; Viscidium subquadrate; stigma oval, vertical; rostellum distinct. Fruit a long capsule.

Flowering and Fruiting: September- October.

Distribution and Habitat: Found in high altitude mossy trees in shades of semi evergreen forests at altitudes of 1500 m, in Chikmaglur Forests of Western Ghats, India. Found on the trunks of *Elaeocarpus serratus* L. and *Bischofia javanica* Blume.

Etymology: The specific epithet '*neglectum*' refers it was a neglected species. Earlier workers might have neglected this species *Robiquetia rosea*.

Conservation status: The conservation status of this variety is data deficient. However the distribution is limited with only a few plants observed at the few known locations (each with c. 3–6 plants). Further survey for this variety is suggested, which would need to be conducted in August to November when Monsoon showers and plants are flowering.

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REFERENCE

1. Myers, N., Mittermeier, R. A., da Fonseca, G.A.B. and Kent, J. 2000. Biodiversity hotspots for conservation priorities. *Nature* 403: 853–857.
2. Nayar, T.S., Rasiya Beegam, A. and Sibi, M. 2014. Flowering *Plants of the Western Ghats, India*. Vol. 2. Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram, Kerala.
3. Pridgeon, A.M., Cribb, P.J. and Chase, M.W. 2014. *Genera Orchidacearum, Vol. 6, Epidendroideae (Part Three)*. Oxford University Press, Oxford, UK.
4. Sasidharan, N. 2013. *Flowering plants of Kerala: CD-ROM ver. 2.0*. (Kerala Forest Research Institute, Peechi, Kerala).
5. Thiers B. continuously updated. *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. <http://sweetgum.nybg.org/science/ih/> (accessed Jun 2018)